

# 59<sup>th</sup> Medical Wing

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**U.S. AIR FORCE**

## 59 MDW Pulmonary Product Line Analysis

### Clinic Response

Information Brief  
Presenter: Maj Walter  
Rustmann

Flight Commander

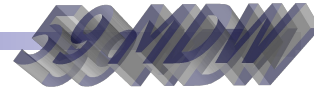
Date: 18 Oct 2004

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*Integrity - Service - Excellence*



# Overview

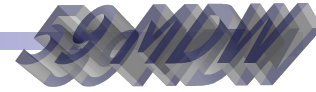


- Pulmonary Product Line Analysis: Clinic Response
  - 59 MDW/CC Follow-up Issues
  - Fulfilling Obligations per the Business Plan
    - Productivity
    - Special Clinical Concerns: O2 Therapy, Pulmonary Rehab
    - Minimizing Network Leakage
    - Pulmonary Resource Concerns
  - Evaluation of SA Pulmonary/ Sleep Market
    - Collaboration with BAMC



# Follow-Up Issues

## ADSC for our Fellows



- New regulations a little murky
  - 3 or 4 year ADSC after training for HPSP
    - Intern year incurs no commitment
    - Previously no additional commitment to payback due to training if done continuously after Med School
    - Now commitment is 1 year for 1 year and you are allowed to serve Med School concurrently with training
    - SO....

Typical 2 year Residency after internship  
plus 3 year fellowship incurs a 5 year  
payback that you serve concurrently  
with HPSP payback

***This gives us typically 1-2 more years  
of a trained Physician than in past***



# Productivity Staffing Issues

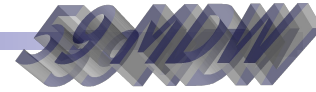


- We train 2 fellows in house per year- 6 total
  - Per ABIM to keep accreditation we need a minimum of 6 staff physicians here
    - This fulfills letter not spirit of the rules

Spirit would be 7 given deployment tempo
- PACAF Situation
  - Emergency request has been dealt with
  - Actual decision of Pulmonologist vs. CCATT Physician above our Radar Screen



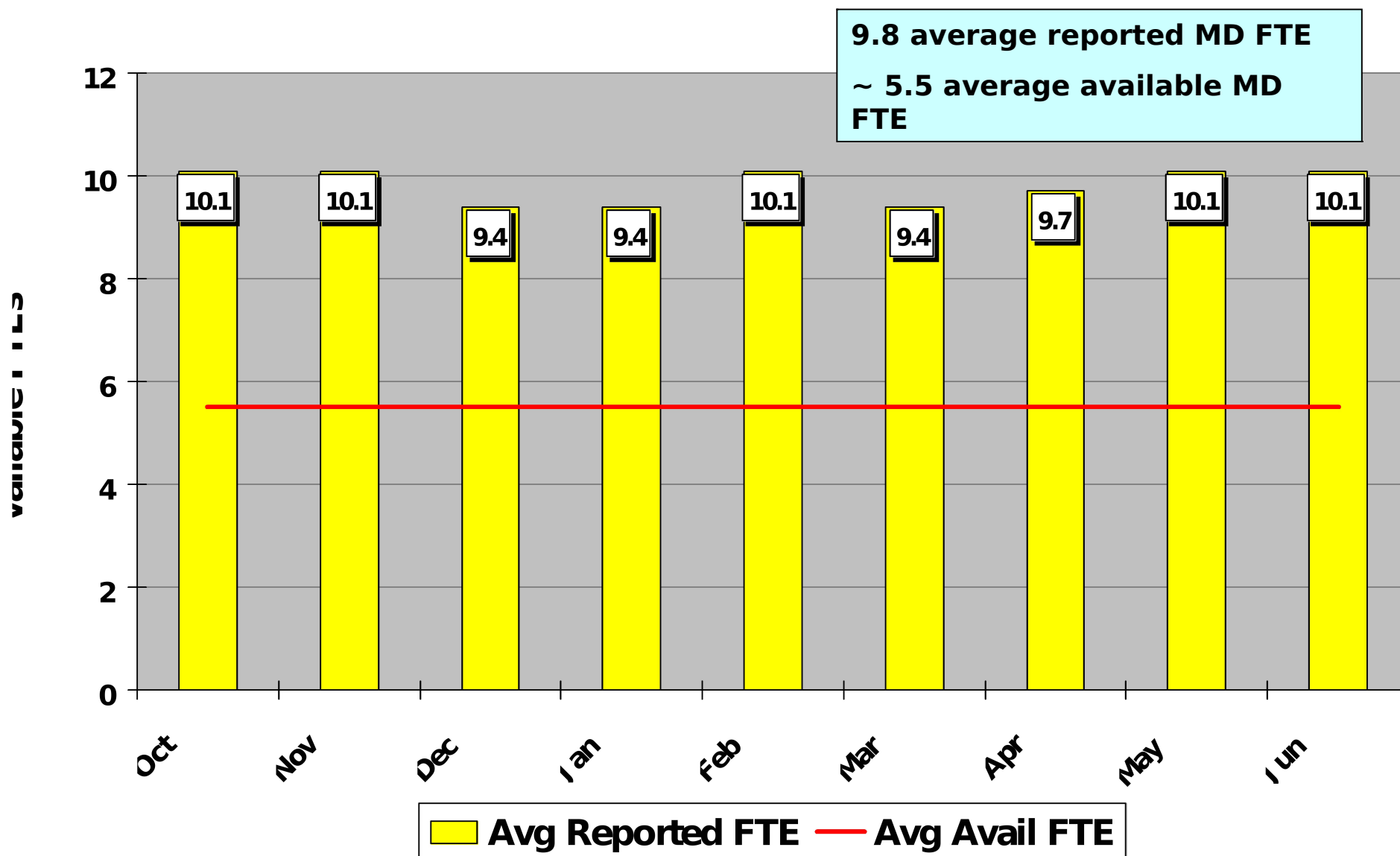
# Productivity Data Quality



- Measuring Productivity
  - Coding/Billing Data Quality
    - Working on issues of coding  
staff outpatient appointments only
    - Recent changes made to allow increased coding for PFT's  
Not done in past
    - Reviewing Procedure computer data base to insure proper accountability for all pulmonary procedures
      - Bronchoscopy
      - Thoracentesis
      - Thoracotomy and Chest Tube placement
    - Inpatient Procedures**: Presently if done on floor not accounted for



# Pulmonary Monthly Reported Available FTEs 03-04





# Areas of Concern: Oxygen Therapy

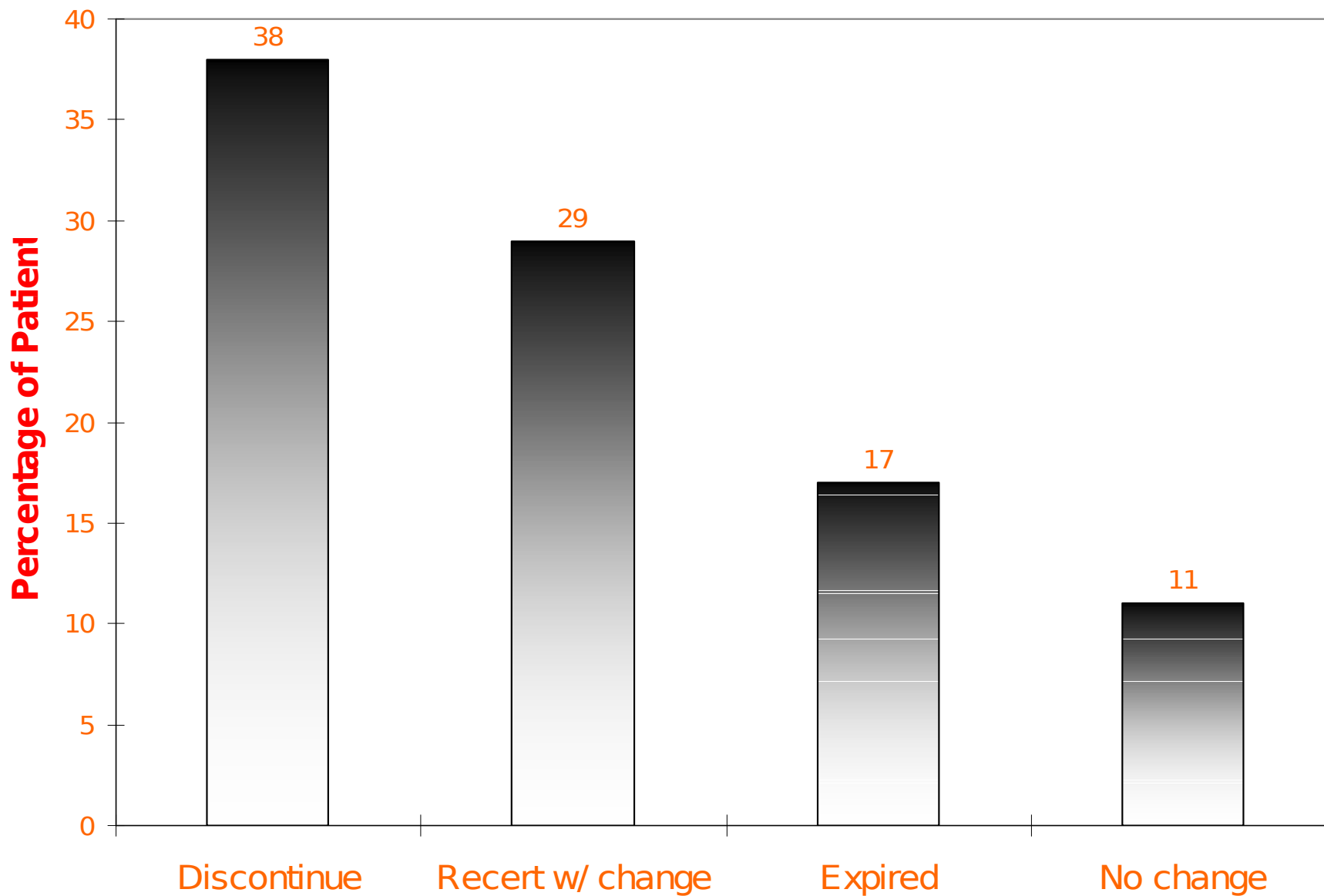


- Oxygen Therapy Clinic Closed WHMC Jun 04
  - Oxygen therapy can be discontinued in up to 40% of long-term oxygen users
- WHMC Experience: June 2000 - May 2001
  - 283 patients: New/ Old/ Recent hospitalized
- **Potential costs savings**
  - Typical oxygen therapy costs at WHMC **\$3855/yr** for 2L/min via concentrator
  - 130 patients taken off supplemental oxygen therapy during study period
  - Over **\$500,000** potential savings



# 02 Therapy Clinic: Overall Results

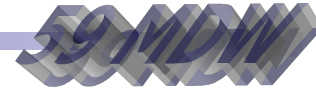
## 283 patients evaluated







# Areas of Concern: Pulmonary Rehabilitation: Standard of Care



- Numerous studies have shown improvements in dyspnea, exercise capacity, and QOL
  - As good as any medication
- Officially closed 2003 due to frequent short staffing and high OPSTEMPO
  - Integral part of Fellowship training at WHMC in Pulmonary/Critical Care
  - Patients now being referred out to community rehabilitation programs
    - Multiple patients complaints



# WHMC Pulmonary Rehabilitation



- Average cost (to patient) in community is \$175 per day per person
  - 3 times per week for 6 weeks (**\$3150/patient**)
- Previously offered 8 classes per year
  - 10-12 patients per class
  - **>\$300,000 potential cost savings**
- The majority of these patients in both categories are over 65 yo
- Major Concern
  - Will patients be sent out?
  - Will we lose them to GME if they go out?



# Proposal OTC & Rehab



- New hires:
  - Civilian/GS position for respiratory therapist to run physician supervised OTC
  - Civilian/GS position for respiratory therapist/LVN to manage Pulmonary Rehab
- Costs:
  - GS-8 RT: \$37,000/year
  - GS- 5 LVN: \$27,000/year
  - No additional funds needed for equipment already in place



# Minimizing Network Leakage Sleep



- Sleep Clinic Leakage
  - 120 consults month (AD/Dep/Ret)
    - WHMC: 64 studies month (AD)
      - approx 56 month leak (**Dep/Ret**)
      - 80% (**45**) <65 yo
      - No peds
  - Active lab 7 nights week 1 additional tech
    - Increase to 96 studies month
      - additional 32 studies leak 24 (9+**15**)
    - Require 1 additional night tech and increase administrative support from 2 x 32 hr to 2 x 40 hr
  - Active lab 7 nights week 2 Additional techs
    - 112 studies month leakage minimal (all over 65)
      - Capture all patients under 65
    - Require 2 additional night techs, 1 day tech and 2 full time admin
    - 112 studies a month would also require 2 sleep physician (civ or AD) due to significant load and teaching requirements
    - ? Feasible



# Sleep Clinic Leakage Cost



- Cost of Leakage
  - Cost per Study: \$681
  - **(45)** studies month
  - \$ **30,645** Month
- \$ **367,740** Year approx loss



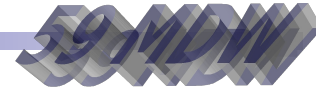
# Sleep Clinic Leakage Cost Benefit



- , Plan 1 Cost: 96 studies month
  - 1 Full time tech \$12- \$18/hr
    - \$600 week/ \$2500 month
    - GS-7: **\$33,071**
  - Increasing Admin from 32-40 hours week each
    - \$217 wk/ \$ 866 month
    - **\$10,400**
  - Supplies
    - **\$6900**
  - Residual leak **(15)** studies month
    - Cost **\$10,215 month**
    - Annual residual leak **\$122,580**
  - Total Cost: **\$172,591**
  - **Annual savings:**
    - **\$194,149**
- Plan 2 Cost: 112 studies month
  - 3 full time technicians
    - 2 night/ 1 day
    - Cost 33,000 x 3= **\$99,000**
  - Additional Sleep Physician
    - Cost: **\$150,000** (WAG)
  - Increasing Admin
    - **\$10,400**
  - Supplies
    - **\$13,820**
  - Total Cost to Region
    - Technician support: \$99,000
    - Admin Staff: \$10,400
    - Physician: \$150,000
    - Supplies: \$13820
    - Total: **\$273,224**
  - **Annual Savings**
    - **\$94,516**



# Sleep Clinic Leakage Cost Benefit



- Is there an Option 3?
  - Merging BAMC & WHMC
    - WHMC already full 5 nights a week
    - BAMC Brand new 4 bed lab also full 4 nights a week
  - BAMC
    - Only 1 Sleep Staff Physician
    - Would we move there?
      - adequate follow up clinic space for such a large clinic?
      - 16 patients a day
      - 8 study f/u
      - 2-4 new consults
      - 4-6 routine f/u
- IT's too early to tell



# Pulmonary Resource Concerns Manning



- Support Staff Manning
  - PFT Technician (GS Vacancy)
    - Needed to improve critical manning shortfall
    - In jeopardy of civilian resignations/retirement
      - April 05 lose 1
      - Presently in the process of hiring
      - Expect Fill December
- Clinic Coordinator
  - Contract Expires 1 Nov
    - Presently replacement not in new contract
- 4AOs/ 4Ns
  - A's losing 1
  - N's
    - Need vs. allocation
    - Rec: Need 4N's to facilitate clinic





# Pulmonary Resource Concerns Space



- Clinic Flow
  - Admin office
    - Manning issues
    - Combining Sleep/Pulmonary Office  
Geographically separated
- Clinic rooms
  - 5 Exam rooms for 12 physicians
  - Physician Offices
    - 6 staff downstairs
    - 2 staff 9<sup>th</sup> Floor
    - 6 fellows in 2 rooms
  - Support Offices: 4Ns/Hs/As
  - Rec: Expand into FP/PCM area if available
    - Presently barely adequate.
    - If resume Oxygen therapy and Rehab will need more space



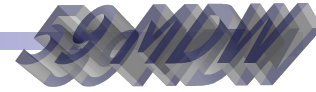
# Pulmonary Resource Concerns Money



- Needed Equipment
  - New C-Arm: **\$110,499**
    - AETC allocated funds
  - Bronchoscopy table **\$35,500**
    - 601 submitted
  - Update Bronchoscopy Scopes **\$139,764**
    - 601 submitted
  - Update PFT equipment **\$124,988**
    - 601 submitted
  - Portable Sonosite **\$28,454**
    - 601 not submitted



# SA Market Options



- Merging BAMC/WHMC Pulmonary into one department or MTF
  - Could be best option in long run
    - Avoid duplication of services
    - Optimize staffing during increased deployment tempo
    - Optimize costs
      - Sleep Dept
        - Is this a realistic thought?
  - Improve GME
    - "Spirit vs. letter of the law"



# Conclusions



- Pulmonary has world class patient care and GME
- Fixing data issues as we identify
- Need to deal with Sleep Leakage
  - Increase WHMC access
  - Need to fill open clinic positions
- Need to consider options for OTC/Rehab
  - Feasibility considering patient demographics
  - GME issue



***Integrity - Service - Excellence***



# Sleep Clinic Leakage Cost



- Cost of Leakage
  - Cost per Study: \$681
  - 56 **(45)** studies month
  - \$ 38,136 **(30,645)**/ Month
- \$ 457,632 **(367,740)**Year approx loss



# Sleep Clinic Leakage Cost Benefit



- , Plan 1 Cost: 96 studies month
  - 1 Full time tech \$12- \$18/hr
    - \$600 week/ \$2500 month
    - GS-7: **\$33,071**
  - Increasing Admin from 32-40 hours week each
    - \$217 wk/ \$ 866 month
    - **\$10,400**
  - Supplies
    - **\$6900**
  - Residual leak 24 **(15)** studies month
    - Cost \$16,344 **(10,215) month**
    - Annual residual leak \$196,128/ **(122,580)**
  - Total Cost:\$246,499 **(172,591)**
  - **Annual savings:**
    - \$211,113 **(194 149)**
- Plan 2 Cost: 112 studies month
  - Leakage minimal
    - Cost 8-10 studies month, all over 65
  - 2 full time nights technicians
    - Cost 33,000 x 2= 66,000
  - 1 daytime technician
    - Cost \$33,000
  - Additional Sleep Physician
    - Cost: \$150,000 (WAG)
  - Supplies
    - Cost: \$13820
  - Total Cost with minimal leakage perhaps 8-10 studies a month
    - Technician support: \$99,000
    - Admin Staff: \$10,400
    - Physician: \$150,000
    - Supplies: \$13820
    - Total: **\$273,224**



# Billing



- O4 Billed 79K
- Collected 27,5K